guage throughout this specification may, but do not necessarily, refer to the same embodiment.

[0040] The terms "comprises," "comprising," "includes," "including" and any other variations thereof, are intended to cover a non-exclusive inclusion, such that a process or method that comprises a list of steps may not only include those steps but may include other steps not expressly listed or inherent to such process or method. Similarly, one or more devices or sub-systems or elements or structures or components proceeded by "comprises" does not, without more constraints, preclude the existence of other devices or other sub-systems or other elements or other structures or other components or additional devices or additional sub-systems or additional elements or additional structures or additional components.

[0041] Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this disclosure belongs. The system, methods, and examples provided herein are illustrative only and not intended to be limiting.

[0042] Further, skilled artisans will appreciate that elements in the figures are illustrated for simplicity and may not have been necessarily been drawn to scale. For example, the flow charts illustrate the method in terms of the most prominent steps involved to help to improve understanding of aspects of the present disclosure. Furthermore, in terms of the construction of the device, one or more components of the device may have been represented in the figures by conventional symbols, and the figures may show only those specific details that are pertinent to understanding the embodiments of the present invention so as not to obscure the figures with details that will be readily apparent to those of ordinary skill in the art having benefit of the description herein.

[0043] FIG. **1** illustrates an exemplary communication system including a discovering device and a plurality of electronic devices, each transmitting a corresponding static identifier as part of the discovery information. As shown in FIG. **1**, a communication system **100** may include a discovering device **101** and a plurality of electronic devices **102-115** that can provide content or services. By way of example, the plurality of electronic devices may include televisions (TVs) having identifiers of TV Device **1** (**102**), TV Device **2** (**103**), TV Device **3** (**104**), TV Device **4** (**105**), TV Device **5** (**106**), and TV Device **6** (**107**); audio players having identifiers of BDP Device **1** (**108**) and BDP Device **2** (**109**); WiFi-enabled devices having identifiers of WiFi Device **1** (**110**) and WiFi Device **2** (**111**), WiFi Direct-enabled devices having identifiers of WiFi Direct Device **1** (**112**) and WiFi Direct Device **2** (**113**); and Bluetooth devices having identifiers of Bluetooth Device **1** (**114**) and Bluetooth Device **2** (**115**).

[0044] The term "identifier," as used herein, may refer to one of a name, a nickname, an identification, a label, a number, etc. that can distinguish one device from another. For example, an identifier may be an alphanumeric string that is recognizable by a machine. An identifier is preferably unique to the device to which the identifier is attached but does not need to be. The identifier can be unique within a given namespace. An identifier may correspond to, for example, a serial number, a model number, a device type, a device name, an address, a service set identifier (SSID), a network name, or any combination thereof.

[0045] TV Device **1** (**102**) is illustrated in FIG. **1** as rendering a Japanese action movie, TV Device **2** (**103**) is illustrated as rendering an English-language romantic movie, TV Device **3** (**104**) is illustrated as rendering an English-language action movie (e.g., Transformers), TV Device **4** (**105**) is illustrated as rendering an English-language fiction movie, TV Device **5** (**106**) is illustrated as rendering an English-language comedy movie, and TV Device **6** (**107**) is illustrated as rendering an English-language news broadcast. BDP Device **1** (**108**) is illustrated as playing a radio broadcast while BDP Device **2** (**109**) is illustrated as playing an English-language song. WiFi Device **1** (**110**) is illustrated as temporarily not having an Internet connection, and WiFi Device **2** (**111**) is illustrated as having an Internet connection. WiFi Direct Device **1** (**112**) is illustrated as temporarily not having data for sharing, and WiFi Direct Device **2** (**113**) is illustrated as having data for sharing. Bluetooth Device **1** (**114**) is illustrated as temporarily b-mg busy while Bluetooth Device **2** (**115**) is illustrated as being free (i.e., available for communication).

[0046] Assuming that the discovering device **101** is able to discover all of the plurality of electronic devices **102-115**, the identifiers of the plurality of electronic device will be displayed in a display area **116** of the discovering device **101**. The discovering device **101** allows a user thereof to select any of the discovered electronic devices and connect **117** to the same.

[0047] In a traditional environment where the content or service to be shared is discovered only after the establishment of a connection, the user at the discovering device may be able to merely see the static device names of the plurality of electronic devices and does not receive any information about what is offered/shared by each of the plurality of electronic device.

[0048] This problem may, however, be solved by transmitting discovery information by an electronic device, where the discovery information includes a dynamic identifier assigned to the electronic device or a connection offered by the electronic device based on the content offered by the electronic device, service offered by the electronic device, and/or an application running on the electronic device. The term "dynamic" as used herein may signify that the identifier may change after the identifier has been already generated according to the content or service that is offered by the device, especially without an additional human input or intervention.

[0049] FIG. **2** illustrates an exemplary communication system including a discovering device and a plurality of electronic devices, where one of the electronic devices transmits a dynamic identifier as part of the discovery information. For the purposes of illustration, consider a communication system **200** as illustrated in FIG. **2**. The communication system **200** is substantially similar to the communication system **100** of FIG. **1** with the difference being in respect to WiFi Device **1** (which is now referred to as **202**). In FIG. **2**, WiFi Device **1** (**202**) transmits discovery information that includes a dynamic identifier (as opposed to a device name). The dynamic identifier can be, for example, "TV_Device **3**_Transformers" for TV_Device **3** (**104**). The dynamic identifier may pertain to any of a dynamic identifier assigned to the WiFi Device **1** (**202**) or a dynamic identifier assigned to a connection offered by the WiFi Device **1** (**202**). The dynamic identifier may be based on content offered by